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Atty. Doc. No. 03P14215US

REMARKS

Applicants have canceled claim 3 and have amended claims 1, 4, 9, 19, and 20. Thus, claims 1,2, 4-20 are pending in the application and presented for examination. Applicants respectfully request allowance of the present application in view of the foregoing amendments
5 and the following remarks.

Response To Rejections Under Section 112:

Claim 20 stands rejected under 35 U.S.C. § 112, second paragraph, the Examiner stating that the language therein is indefinite, as filed. In response, Applicants have amended
10 this claim to more clearly define the present invention and hereby respectfully request that the Examiner withdraw the Section 112 rejection.

Response To Rejections Under Section 102:

Rejections under US Patent 4,604,031, issued to Moss et al.

15 Claims 1,2, 9, 10, 14, 15, and 19 stand rejected under 35 U.S.C. § 102(b), the Examiner contending that these claims are anticipated by U.S. Patent No. 4,604,031 to Moss et al. ("Moss").

Moss discloses a hollow, fluid-cooled turbine blade having an internal wall with an aerodynamically shaped end portion located within a turning passage. A turning vane having a
20 relatively large radius is located within the turning passage and spaced apart from the wall end. While it is noted that the Moss turning vane is curved and divides the turning passage into two regions, the turning vane does not substantially surround either of the two regions formed.

Instead, the Moss turning vane cooperates with the Moss aerodynamically shaped wall end to form a converging passageway through which cooling air flows around the

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aerodynamically shaped end portion with reduced boundary layer separation. (See col. 4, lines 40-47).

In contrast, the Applicant's invention includes a boundary member which is contoured to substantially surround a first guided-flow region. Moss does not teach or suggest a boundary member which is contoured to substantially surround a first guided-flow region, as is claimed in amended Claims 1 and 19.

In view of the above, Independent claims 1 and 19 are patentable over Moss. Dependent claims 2, 9, 10, 14, and 15 are also patentable at least based on their dependency from their respective base claims, as well as based on their own merit. Therefore, Applicants respectfully request that the Examiner withdraw the Section 102 rejection.

Rejections under US Patent 5,669,759, issued to Beabout ("Beabout")

Claims 1, 2, 13-15, and 19 stand rejected under 35 U.S.C. § 102(b), the Examiner contending that these claims are anticipated by US Patent 5,669,759, issued to Beabout ("Beabout").

Beabout discloses a turbine airfoil with enhanced cooling having a curved turning vane which facilitates movement of air through an internal serpentine cooling passage. However, although the Beabout turning vane is curved, the vane does not substantially surround a guided flow region. Instead, the turning vane merely cooperates with the passage walls to guide cooling air flow through sections of the serpentine passage. (See col. 4, lines 16-18).

In contrast, the Applicant's invention includes a boundary member which is contoured to substantially surround a first guided-flow region. Beabout does not teach or suggest a boundary member which is contoured to substantially surround a first guided-flow region, as is claimed in amended Claims 1 and 19.

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In view of the above, independent claims 1 and 19 are patentable over Beabout.

Dependent claims 2 and 13-15 are also patentable at least based on their dependency from their respective base claims, as well as based on their own merit. Therefore, Applicants respectfully request that the Examiner withdraw the Section 102 rejection.

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Rejections under US Patent 5,536,143, issued to Jacala ("Jacala")

Claims 1, 2, 13-15, and 19 stand rejected under 35 U.S.C. § 102(b), the Examiner contending that these claims are anticipated by US Patent 5,536,143, issued to Jacala ("Jacala").

10 Jacala discloses an internally-cooled fluid directing component. However, Jacala does not teach or suggest a boundary member which is contoured to substantially surround a first guided-flow region, as is claimed in amended Claims 1 and 19.

In view of the above, independent claims 1 and 19 are patentable over Beabout.

15 Dependent claims 2 and 13-15 are also patentable at least based on their dependency from their respective base claims, as well as based on their own merit. Therefore, Applicants respectfully request that the Examiner withdraw the Section 102 rejection.

Rejections under US Patent 6,347,923 issued to Semmler et al. ("Semmler")

20 Claims 1, 2, 14, 15, and 19 stand rejected under 35 U.S.C. § 102(b), the Examiner contending that these claims are anticipated by US Patent 6,347,923 issued to Semmler et al. ("Semmler").

Semmler discloses an internally-cooled fluid directing component having a curved baffle plate which, as noted in col. 2, lines 52-54, reduces cooling medium flow separation. However, although the Semmler baffle plate is curved, the baffle plate does not substantially surround a
25 guided flow region.

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In contrast, the Applicant's invention includes a boundary member which is contoured to substantially surround a first guided-flow region. Semmler does not teach or suggest a boundary member which is contoured to substantially surround a first guided-flow region, as is claimed in amended Claims 1 and 19.

5 In view of the above, independent claims 1 and 19 are patentable over Beabout. Dependent claims 2, 14, and 15 are also patentable at least based on their dependency from their respective base claims, as well as based on their own merit. Therefore, Applicants respectfully request that the Examiner withdraw the Section 102 rejection.

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CONCLUSION

The Applicant notes that the Examiner has allowed claims 16-18 and wishes to thank the Examiner for such a finding. Furthermore, for the foregoing reasons, it is respectfully submitted that the objections and rejections set forth in the outstanding Office Action are inapplicable to the present claims and specification. Accordingly, the Applicant respectfully
15 requests that the Examiner reconsider the objections and rejections and timely pass the application to allowance.

The undersigned has made a good faith effort to respond to all of the objections and rejections in the application and to place the claims in condition for allowance. Should the Examiner have any questions concerning this paper or application, or if any undeveloped issues
20 or questions remain, the Examiner is respectfully requested to contact Applicant's undersigned attorney to resolve such issue or question. All correspondence should continue to be directed to our below-listed address.

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Please grant any extensions of time required to enter this paper. The commissioner is hereby authorized to charge any appropriate fees due in connection with this paper or credit any overpayments to Deposit Account No. 19-2179.

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Respectfully submitted,

Dated: 3/22/05 By: _____

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